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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,939	08/02/2007	Haruo Sugiyama	14875-168US1 CI-A0401P-US	9482
26161 7590 10/26/2010 FISH & RICHARDSON P.C. (BO) P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			EXAMINER GIBBS, TERRA C	
			ART UNIT 1635	PAPER NUMBER
			NOTIFICATION DATE 10/26/2010	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/594,939	<b>Applicant(s)</b> SUGIYAMA ET AL.	
	<b>Examiner</b> TERRA C. GIBBS	<b>Art Unit</b> 1635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 8/12/2010, 11/16/09, and 7/21/09.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 21-52 is/are pending in the application.
- 4a) Of the above claim(s) 26,33,38 and 45 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-25,27-32,34-37,39-44 and 46-52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/21/2010, 8/12/2010, 7/21/09</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This Office Action is a response to Applicant's Election filed August 12, 2010 and Applicant's Amendment and Remarks filed November 16, 2009 and Applicant's Amendment and Remarks filed July 21, 2009.

Claims 1-20 have been canceled. New claims 21-52 are acknowledged.

Claims 21-52 are pending in the instant application.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Election/Restrictions***

Applicant's election without traverse of Group I (claims 25, 32, and 37) in the response filed August 12, 2010 is acknowledged.

Claims 26, 33, 38, and 45 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on August 12, 2010.

The restriction is still deemed proper and is therefore made FINAL.

This application contains claims 26, 33, 38, and 45 drawn to an invention nonelected with traverse in the reply filed on August 12, 2010. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144). See MPEP § 821.01.

Claims 21-25, 27-32, 34-37, 39-44, and 46-52 have been examined on the merits.

***Response to Amendment***

Applicant's Amendment filed November 16, 2009 is acknowledged. It is noted that the instant application is fully compliant with the sequence requirements of 37 CFR § 1.821-1.825.

***Information Disclosure Statement***

Applicant's information disclosure statement filed September 21, 2010 is acknowledged. The submission is in compliance with the provisions of 37 CFR §1.97. Accordingly, the Examiner has considered the information disclosure statement, and a signed copy is enclosed herewith.

Applicant's information disclosure statement filed August 12, 2010 is acknowledged. The submission is in compliance with the provisions of 37 CFR §1.97. Accordingly, the Examiner has considered the information disclosure statement, and a signed copy is enclosed herewith.

Applicant's information disclosure statement filed July 21, 2009 is acknowledged. The submission is in compliance with the provisions of 37 CFR §1.97. Accordingly, the Examiner has considered the information disclosure statement, and a signed copy is enclosed herewith.

***Claim Rejections - 35 USC § 112***

In the previous Office Action mailed January 22, 2009, claims 1-4, 6-8, 10-13, 15, 17, and 19 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. **This rejection is moot** in view of Applicant's Amendment filed July 21, 2009 to cancel these claims.

***Claim Rejections - 35 USC § 102***

In the previous Office Action mailed January 22, 2009, claims 1, 2, 6-8, 10-13, 15, 17, and 19 were rejected under 35 U.S.C. 102(b) as being anticipated by Hübinger et al. (Applicant's Reference A15 on the Information Disclosure Statement filed August 4, 2008). **This rejection is moot** in view of Applicant's Amendment filed July 21, 2009 to cancel these claims.

***Claim Rejections - 35 USC § 103***

In the previous Office Action mailed January 22, 2009, claims 1-4, 6-8, 10-13, 15, 17, and 19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Yamagami et al. (Applicant's Reference A23 on the Information Disclosure Statement filed January 22, 2008) in view of Murata et al. (Applicant's Reference A21 on the Information Disclosure Statement filed January 22, 2008) and Hammond et al. (Nature Genetics 2001, Vol. 2:110-119). **This rejection is moot** in view of Applicant's

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Amendment filed July 21, 2009 to cancel these claims.

Applicant's Amendment filed July 21, 2009 necessitated the new ground(s) of rejection presented below:

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 23, 28, 29, 40, and 41 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a new matter rejection.

Claims 28, 29, 40, and 41 are drawn to an siRNA molecule comprising a sense strand hybridized to an antisense strand, wherein the antisense strand targets a region in a 17AA site of a Wilms' tumor gene transcript, and wherein the siRNA suppresses cell growth, wherein the sense and antisense strands are in a single transcript and are linked by an RNA linker that forms a single stranded hairpin loop when the sense and antisense RNA strands hybridize; and wherein the sense and antisense strands are transcribed from the DNA in separate transcripts. The issue is the terms "RNA linker"

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as recited in claim 28' and "separate transcripts" as recited in claim 29 appear to be new matter.

In Applicant's Amendment filed July 21, 2009, new claims 28, 29, 40, and 41 were introduced on the record. Applicants contend that support for new claim 28 and 40 can be found in the substitute specification at page 10, lines 23-28. Upon review of page 10, it does not appear that the information contained therein supports the limitation, wherein the sense and antisense strands are in a single transcript and are linked by an RNA linker that forms a single stranded hairpin loop when the sense and antisense RNA strands hybridize. Applicants also contend that support for new claims 29 and 41 can be found in the substitute specification at page 10, lines 5-22. Upon review of page 10, it does not appear that the information contained therein supports the limitation, wherein the sense and antisense strands are transcribed from the DNA in separate transcripts.

If Applicants believe that new claims 28, 29, 40, and 41 do not contain new matter, the Examiner urges Applicant to specifically point out, with particularity, where support can be found for the specific limitations as discussed above. Otherwise, Applicants are required to cancel the new matter in the reply to this Office Action.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 21-25, 27, 30-32, 34-37, 39, 42-44, and 46-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,034,235 (provided as reference A1 on the Information Disclosure Statement filed August 4, 2008), in view of Hammond et al. (Nature Genetics 2001, Vol. 2:110-119, of record), and WO 03/061386 A1 (provided as reference #4 on the Information Disclosure Statement filed July 21, 2009).

Claim 21 is drawn to an siRNA molecule comprising a sense strand hybridized to an antisense strand, wherein the antisense strand targets a region in a 17AA site of a Wilms' tumor gene transcript, and wherein the siRNA suppresses cell growth. Claims



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21-25 and 47-52 are dependent on claim 21 and include all the limitations of claim 21 with the further limitations wherein each of the sense and antisense strands is 15 to 49 bases in length; wherein at least one of the sense and antisense strands has a single-stranded overhang at one end; wherein the sense strand comprises SEQ ID NO:1 and the antisense strand comprises SEQ ID NO:2, wherein the siRNA inhibits growth of a cancer cell; wherein the siRNA induces death of a cancer cell; wherein the siRNA inhibits growth of a fibrosarcoma, colon cancer cell, leukemia or gastric cancer cell; wherein the siRNA enhances sensitivity of a cancer cell to an anticancer agent or cell-death-inducing agent; and wherein the siRNA enhances cytochrome c release into the cytoplasm. Claim 27 is drawn to a DNA comprising a sequence that is transcribed into a sense RNA strand and an antisense RNA strand that hybridize together to form an siRNA that suppresses cell growth, wherein the antisense RNA strand targets a region in a 17AA site of a Wilms' tumor gene transcript. Claims 30-32, 39, and 42-44 are dependent on claim 27 and include all the limitations of claim 27 with the further limitations wherein each of the sense and antisense strands is 15 to 49 bases in length; wherein at least one of the sense and antisense strands has a single-stranded overhang at one end; wherein the sense strand comprises SEQ ID NO:1; and a vector comprising the DNA of claim 27, 30, 31, and 32. Claim 34 is drawn to a pair of DNAs, the first DNA comprising a sequence that is transcribed into a sense RNA strand and the second DNA comprising a sequence that is transcribed into an antisense strand, wherein the sense and antisense RNA strands hybridize together to form an siRNA that suppresses cell growth, wherein the antisense RNA strand targets a region in a 17AA

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site of a Wilms' tumor gene transcript. Claims 35-37 are dependent on claim 34 and include all the limitations of claim 34 with the further limitations wherein each of the sense and antisense strands is 15 to 49 bases in length; wherein at least one of the sense and antisense strands has a single-stranded overhang at one end; wherein the sense strand comprises SEQ ID NO:1. Claim 46 is drawn to a pair of vectors, each vector comprising one of the DNAs of claim 34.

It is noted that the instant specification at page 9, lines 3 and 4 discloses:

"The 17AA site of the WT1 gene corresponds to positions 1137 to 1187 in the sequence of SEQ ID NO:6"

*Determining the scope and contents of the prior art*

U.S. Patent No. 6,034,235 teaches antisense oligonucleotides complementary to a WT1 gene transcript (see Abstract and page 2878, last paragraph). Specifically, U.S. Patent No. 6,034,235 teach the antisense oligonucleotide derivatives used in the invention is an antisense oligonucleotide derivative to WT1, examples of which include that to the transcription capping site of WT1 gene, that to the translation starting region, that to an exon or that to an intron. U.S. Patent No. 6,034,235 teaches SEQ ID NO:14, which is exon 5, and is 100% identical to a 17AA site of the WT1 gene (e.g. nucleotides 1137 to 1187 of SEQ ID NO:6 of Applicant's invention). Compare U.S. Patent No. 6,034,235 at SEQ ID NO:14 to nucleotides 1137 to 1187 of SEQ ID NO:6 of Applicant's invention. U.S. Patent No. 6,034,235 teaches that the antisense oligonucleotides of their invention comprise 5 to 50 continuous nucleotides or 5 to 70 nucleotides of antisense DNA or RNA chain for WT1. U.S. Patent No. 6,034,235 taught that antisense oligonucleotides complementary to a WT1 gene transcript were used to inhibit WT1

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expression in leukemia cell lines (see Figures, for example).

It is noted that U.S. Patent No. 6,034,235 are silent as to whether or not the antisense oligonucleotides of their invention, complementary to exon 5 of a WT1 gene transcript, also inhibits growth of a cancer cell; induces death of a cancer cell; inhibits growth of a fibrosarcoma, colon cancer cell, leukemia or gastric cancer cell; enhances sensitivity of a cancer cell to an anticancer agent or cell-death-inducing agent; or enhances cytochrome c release into the cytoplasm. However, the burden of establishing whether the antisense oligonucleotides complementary to exon 5 of a WT1 gene transcript taught by U.S. Patent No. 6,034,235 would have the additional function of inhibiting growth of a cancer cell; inducing death of a cancer cell; inhibiting growth of a fibrosarcoma, colon cancer cell, leukemia or gastric cancer cell; enhancing sensitivity of a cancer cell to an anticancer agent or cell-death-inducing agent; or enhancing cytochrome c release into the cytoplasm release into the cytoplasm under generally any assay conditions falls to Applicant. See MPEP 2112.01, "Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not." *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the *prima facie* case can be rebutted by evidence showing that the prior art products do not necessarily possess the

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characteristics of the claimed product. *In re Best*, 562 F.2d at 1255, 195 USPQ at 433.” See also MPEP 2112: “[T]he PTO can require an Applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his [her] claimed product.” The MPEP at 2112 citing *In re Fitzgerald* 205 USPQ 594, 596, (CCPA 1980), quoting *In re Best* 195 USPQ 430 as per above. Therefore, it falls to Applicant to determine and provide evidence that the antisense oligonucleotides complementary to exon 5 of a WT1 gene transcript taught by U.S. Patent No. 6,034,235 would have the additional function of inhibiting growth of a cancer cell; inducing death of a cancer cell; inhibiting growth of a fibrosarcoma, colon cancer cell, leukemia or gastric cancer cell; enhancing sensitivity of a cancer cell to an anticancer agent or cell-death-inducing agent; or enhancing cytochrome c release into the cytoplasm release into the cytoplasm as instantly claimed.

Furthermore, it should be noted that the functional language of inhibiting growth of a cancer cell; inducing death of a cancer cell; inhibiting growth of a fibrosarcoma, colon cancer cell, leukemia or gastric cancer cell; enhancing sensitivity of a cancer cell to an anticancer agent or cell-death-inducing agent; or enhancing cytochrome c release into the cytoplasm release into the cytoplasm is nothing more than an intended use. Applicant is reminded that the recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In the instant case, the antisense oligonucleotides complementary to exon 5 of a WT1 gene

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transcript taught by U.S. Patent No. 6,034,235 are capable being used to inhibit growth of a cancer cell; induce death of a cancer cell; inhibits growth of a fibrosarcoma, colon cancer cell, leukemia or gastric cancer cell; enhance sensitivity of a cancer cell to an anticancer agent or cell-death-inducing agent; or enhance cytochrome c release into the cytoplasm, and therefore it would meet the functionality of the claim, absent evidence to the contrary.

*Ascertaining the differences between the prior art and the claims at issue*

U.S. Patent No. 6,034,235 does not teach an siRNA molecule. Additionally, U.S. Patent No. 6,034,235 does not teach DNAs transcribed to form a siRNA, and vectors containing those DNAs.

Hammond et al. teach that antisense and RNA interference are two methods of silencing expression of a gene and that RNA interference possesses characteristics that make it superior to antisense. For example, on page 110, first column, Hammond teaches that antisense methods are straightforward but suffer from “questionable specificity and incomplete efficacy”. RNA interference on the other hand, “has been shown in diverse organisms to inhibit gene expression in a sequence-specific manner” (same page and column) and requires only a few molecules of dsRNA per cell to silence expression. Hammond also teaches that the RNA interference phenomenon in animals was discovered by researchers who were using antisense techniques and found that the use of double stranded instead of single-stranded RNAs reduced gene expression tenfold more efficiently (see paragraph bridging pages 110-111).

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WO 03/061386 teach anti-WT1 antisense molecules that are useful for inhibiting the growth of cancer cells and inducing apoptosis of cancer cells. WO 03/061386 teach that the antisense molecules may be DNA or RNA and may be double-stranded. WO 03/061386 teach that the anti-WT1 antisense molecule is inserted into an expression vector so as to allow production of the antisense molecule in the cancer cells. See page 3, lines 3-12; page 4, lines 8-14; pages 9-12; claims 1, 3-4, 16. WO 03/061386 also teach that the antisense molecules of their invention are designed to hybridize to a WT1 exon region.

*Resolving the level of ordinary skill in the pertinent art*

The level of ordinary skill in the pertinent art is considered to be high, being a graduate student or post-doctoral fellow in a biological science.

*Considering objective evidence present in the application indicating obviousness or nonobviousness*

It would have been *prima facie obvious* to one of ordinary skill in the art, at the time the invention was made to make an siRNA molecule comprising a sense strand hybridized to an antisense strand, wherein the antisense strand targets a region in a 17AA site of a Wilms' tumor gene transcript, and wherein the siRNA suppresses cell growth using the teachings and motivation of U.S. Patent No. 6,034,235 combined with the teachings and motivation of Hammond et al. It would have been *prima facie obvious* to one of ordinary skill in the art, at the time the invention was made to make DNAs transcribed to form a siRNA molecule comprising a sense strand hybridized to an antisense strand, wherein the antisense strand targets a region in a 17AA site of a Wilms' tumor gene transcript and vectors containing those DNAs using the teachings

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and motivation of WO 03/061386.

One of ordinary skill in the art would have been motivated to make an siRNA molecule comprising a sense strand hybridized to an antisense strand, wherein the antisense strand targets a region in a 17AA site of a Wilms' tumor gene transcript, and wherein the siRNA suppresses cell growth since U.S. Patent No. 6,034,235 taught that an antisense molecule targeted to exon 5, which is 100% identical to a 17AA site of a Wilms' tumor gene transcript could be used to regulate leukemogenesis. One of ordinary skill in the art would have been motivated to substitute the antisense molecule targeted to exon 5, which is 100% identical to a 17AA site of a Wilms' tumor gene transcript taught by U.S. Patent No. 6,034,235 with an siRNA since it is obvious to substitute one functional equivalent for another, particularly when they are to be used for the same purpose. See MPEP 2144.06. Furthermore, one of ordinary skill in the art would have been motivated to substitute the antisense molecule targeted to exon 5, which is 100% identical to a 17AA site of a Wilms' tumor gene transcript taught by U.S. Patent No. 6,034,235 with an siRNA since Hammond et al. taught that RNA interference is superior to antisense.

One of ordinary skill in the art would have expected success at making an siRNA molecule comprising a sense strand hybridized to an antisense strand, wherein the antisense strand targets a region in a 17AA site of a Wilms' tumor gene transcript, and wherein the siRNA suppresses cell growth since U.S. Patent No. 6,034,235 taught the successful use and design of an antisense molecule antisense molecule targeted to exon 5, which is 100% identical to a 17AA site of a Wilms' tumor gene transcript and

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KSR forecloses that the simple substitution of one known element for another would have yielded predictable results at the time of the invention. See U.S. Supreme Court decision in the KSR International v. Teleflex Inc. (82 USPQ2d 1385).

Therefore, the invention would have been *prima facie* obvious to one of ordinary skill in the art at the time of filing.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terra C. Gibbs whose telephone number is 571-272-0758. The examiner can normally be reached from 9 am - 5 pm M-F.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Low can be reached on 571-272-0915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

October 15, 2010  
/Terra Cotta Gibbs/

/Sean R McGarry/  
Primary Examiner, Art Unit 1635